Cotton/Soybean Insect Newsletter

Volume 14, Issue #3 Edisto Research & Education Center in Blackville, SC 7 June 2019

Pest Patrol Alerts

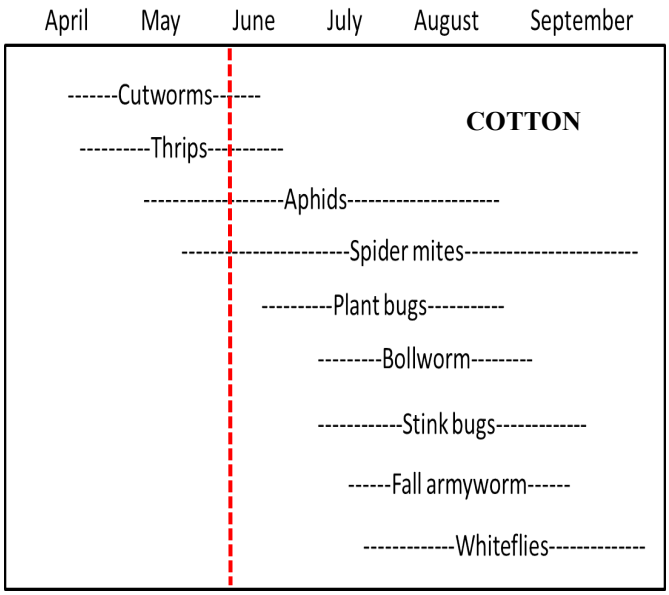
The information contained herein each week is available via text alerts that direct users to online recordings. I will update the short message weekly for at least as long as the newsletter runs. After a new message is posted, a text message is sent to alert users that I have recorded a new update. Users can subscribe for text message alerts for my updates in two easy steps. Step one: register by texting **pestpat7** to 97063. Step two: reply to the confirmation text you receive by texting the letter "y" to complete your registration. Pest Patrol Alerts are sponsored by Syngenta.

Updates on Twitter

When noteworthy events happen the in the field, I will be sending them out quickly via Twitter. If you want to follow those quick updates, follow me at @bugdocisin on Twitter.

News from Around the State

Mitch Binnarr, with Phytogen Seed, reported that much of the cotton he and his growers are tending to is sustaining heavy injury from thrips. He mentioned that it was anywhere from 1- to 6-leaf cotton and was wondering what our stance is on treating for thrips after the cotton has 5 leaves on it. Please see my comments below under ***Cotton Insects*** for my take on late sprays for thrips. **Drake Perrow**, consultant in Calhoun County, reported on Wednesday that he observed spider mites on pinhead square cotton that had 4 lb of aldicarb per acre applied at planting and no acephate oversprays. So, if spider mites are going to show up after aldicarb, they can show up under any circumstances, as aldicarb usually has some suppression of spider mites. **Jonathan Croft**, county agent in Orangeburg County, reported that after talking with "some growers this week, grasshoppers seemed to be the big insect problem in some fields last week."



Cotton Situation

As of 2 June 2019, the USDA NASS South Carolina Statistical Office estimated that about 94% of the crop has been planted, compared with 90% the previous week, 83% at this time last year, and 85% for the 5-year average. The condition of the crop was described as 0%

excellent, 42% good, 44% fair, 12% poor, and 2% very poor. These are observed/perceived state-wide averages.

Cotton Insects

I found these old ink stamps with the slogans "It's About Cotton Scouting" and "Fight Cotton Pests" here at Edisto, so I stamped them and scanned them in for digital use. If anybody remembers who might have made these old stamps, let me know. Maybe it was Dr. Mitch Roof or Dr. Mike Sullivan? They are old, but I would like to acknowledge the artist…I really like the one with, what I am assuming is, a boll weevil being clubbed by a grower! 😊

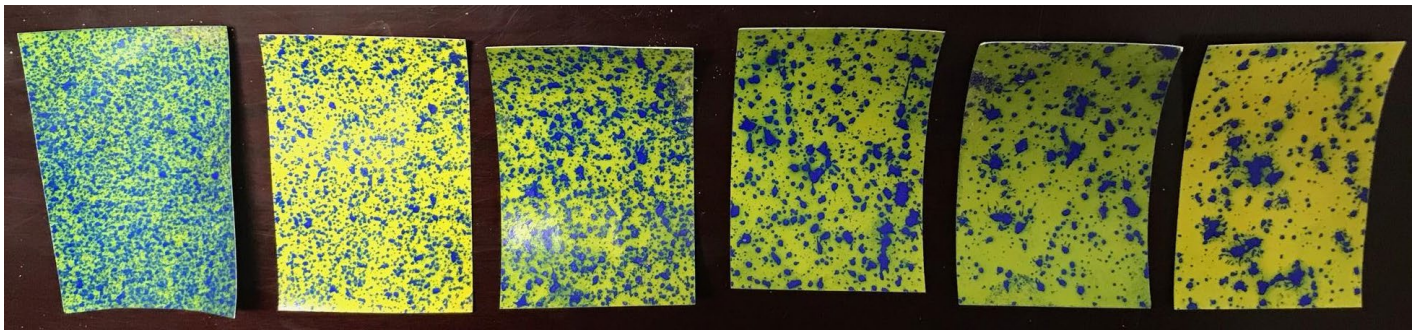
Our official stance on treating for thrips with foliar insecticides is that, historically, sprays for thrips on seedling cotton with more than 5 true leaves that is growing normally are not justified. However, we have a couple of things going this season that will likely make it better to treat after 5 leaves. First of all, "historically" doesn't cover all years…there are exceptions, and this year might be one. This is one of the hottest and driest Mays I remember in SC. Secondly, "growing normally" does not apply to cotton seedlings that have been experiencing extreme heat and drought conditions. The plants are simply not growing as they would be with adequate moisture. Furthermore, because all of the at-plant insecticides require moisture to activate and move them into the plant systemically, they are not performing as they normally would, allowing more injury than normal. The recent rains have dramatically knocked down the populations of thrips in my plots in Blackville. Populations were heavy before the rains started. I expect that they will not return to those heavy levels, and much of the crop will rapidly grow out of light to moderate levels of injury. Many of the cotton seedlings with heavy injury will also likely grow out of the injury, but they will be delayed. With the rain likely continuing for the next several days, I would limit any foliar sprays for thrips, unless they are absolutely necessary, AND you can find a window of a few rainless hours after you pull out of the field. Our recommendations for foliar sprays for thrips are shown again on the next page. Because much of our crop is moving (or is already) out of the "thrips window" for this season, we will probably end our discussions about thrips this week and start focusing on plants bugs, aphids, and spider mites in the next few weeks. Tarnished plant bug is likely becoming more of an issue, and we want to survey this season to see where we are in the state with importance of this pest. Spider mites are already rearing their ugly heads early, but the best "product" for spider mites in cotton is rain. Thankfully, we have some of that for the next few days. Cotton aphid is capable of transmitting a virus to cotton that has been detected here in the Southeast, and we will be focusing on that also. Stayed tuned for more on those arthropod pests and vector of disease in the next few weeks.

THRIPS

Product (foliar sprays)	Product/acre	Lb ai/acre	Acre/gal	REI	PHI	Comments
dicrotophos **(R)** Bidrin 8 E	 3.2 oz	0.2	 40	6 d	30 d	3.2 oz limit pre-bloom
acephate Orthene/Acephate 97 Orthene/Acephate 90	 3.0 oz 3.2 oz	0.18	 - -	24 hr	21 d	
dimethoate Dimethoate 4 EC	 8.0 oz	0.25	 16	48 hr	14 d	
spinetoram Radiant 1 SC	 1.5-3.0 oz	0.0117-0.0234	 42.7-85.3	4 hr	28 d	Adjuvant recommended

The high rate of aldicarb should also provide some protection against nematodes and suppress early populations of aphids and spider mites. When cotton is planted after May 20, seed treatments have proven to be effective in limiting thrips damage to seedling cotton plants. Avicta (with abamectin) and Aeris (with thiodicarb) have some activity on nematodes. Generally, a preventative insecticide used at planting will protect seedlings from severe stunting characteristic of thrips injury. Occasionally, however, conditions will be unfavorable for proper uptake of systemic insecticides (too cool, dry soil, excessive moisture, etc.), and plants can be severely damaged. **Foliar treatments will be most effective when applied to cotton seedlings prior to unfolding of the second true leaf**. A foliar insecticide treatment may be needed when two or more thrips are found per plant. Shake each plant (randomly select 25 or more) into a large, white cup or on a white cloth or paper to facilitate counting of adults. Use a black cup or cloth for immatures. When most plants have severely damaged growing points and immature thrips are present, one or more foliar treatments may be needed to allow the plants to resume normal growth and development. Examine plants 5-7 days after the initial treatment, and treat again if immatures are still present on most plants. When the newly unfolded leaves of infested plants are free of damage and plants appear to be growing at a normal rate, further applications of insecticides will have little benefit. Treatments applied beyond the four-leaf stage of growth may be counterproductive, as these reduce beneficial populations and often result in problems with other pests. Although effective, acephate can flare populations of spider mites and aphids.

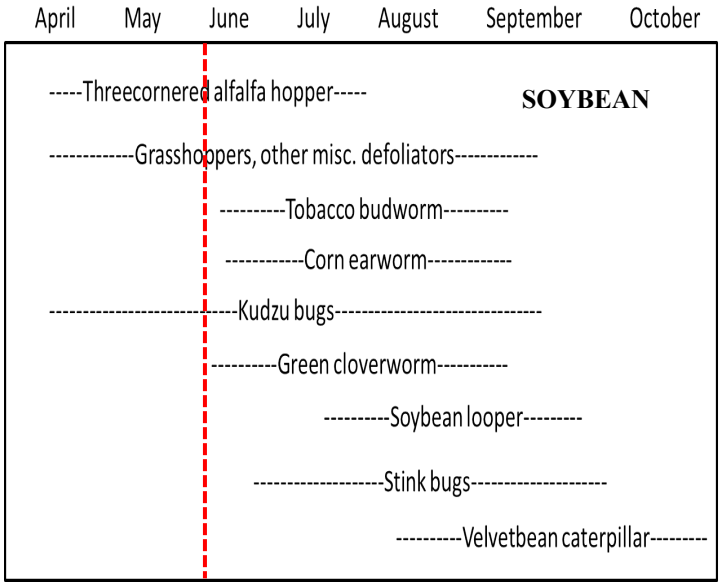
Our work with spraying technology, droplet size, and impacts on efficacy is wrapping up on thrips. We will continue that work with bollworm in non-Bt cotton and stink bugs later in the season, but check out the water-sensitive paper Dr. Michael Plumblee put out in the plots and recovered after he sprayed with 6



different droplet sizes. It clearly showed capture of droplets and the impact of droplet size on coverage. Much should be considered when minimizing drift and maximizing coverage. Control of weeds and control of insects can be two different objectives when the sprayer goes across the field. Think this spray pattern affected control of thrips? Will it affect control for other pests? Stay tuned for the results.

Soybean Situation

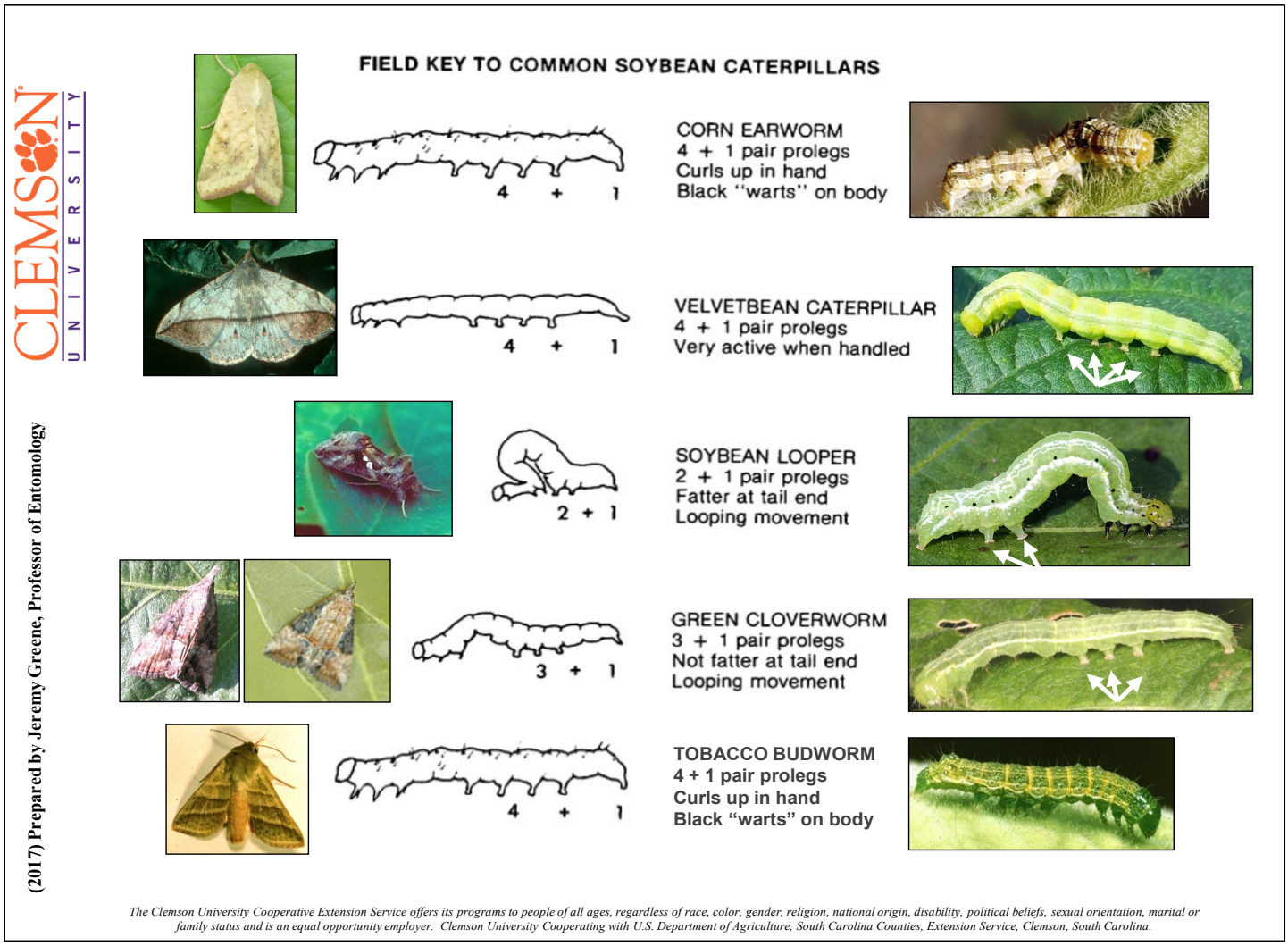
As of 2 June 2019, the USDA NASS South Carolina Statistical Office estimated that about 41% of the crop has been planted, compared with 38% the previous week, 65% at this time last year, and 56% for the 5-year average. About 27% of the crop has emerged, compared with 17% the previous week, 34% at this time last year, and 37% for the 5-year average. The condition of the crop has yet to be described by the office (--% excellent, --% good, --% fair, --% poor, and --% very poor), but it will be soon. These are observed/perceived state-wide averages.



Soybean Insects

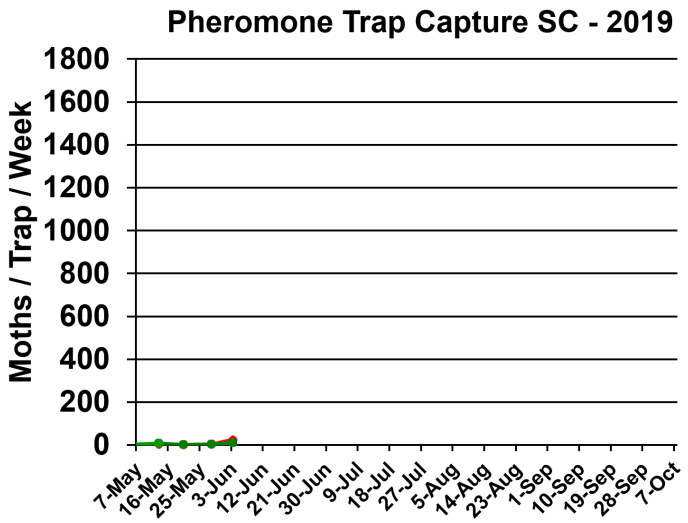
Deer continue to be a problem, and we have found that the soap-based products, such as formulated insecticidal soap, Hinder, etc.) continue to be good repellents. Insects have not been a widespread issue yet, but we are seeing grasshoppers and threecornered alfalfa hopper (TCAH) as the most numerous insects in our sampling so far. Pyrethroid insecticides are the best choices for these pests, but, remember, you have to use a high rate to kill the large adult grasshoppers, and you will likely miss some of them. We just cannot get enough active ingredient into the large bodied grasshoppers. Treat for grasshoppers when the stand is threatened early or when defoliation levels exceed 30% before mid-bloom and 15% after mid-bloom with grasshoppers as the identified culprit. Treat for TCAH at 3 per rowft or more than several per sweep. Also, we have detected some stink bugs already in soybeans, so it could be a big stink bug year.

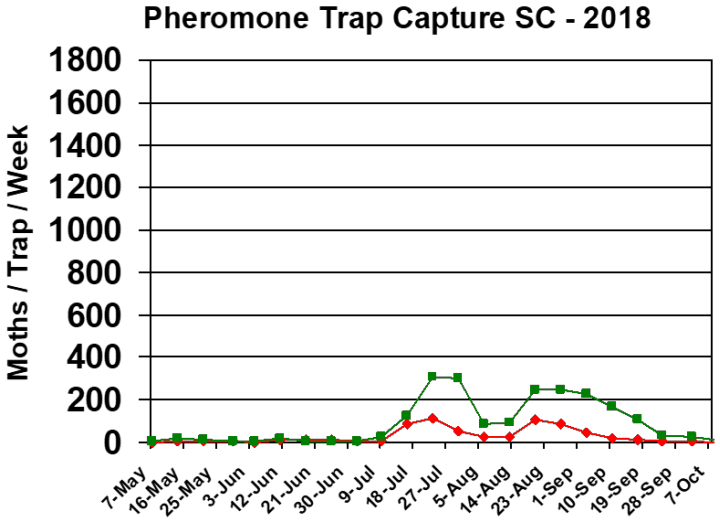
It is never too early to start talking about identifying caterpillars and moths. Start familiarizing yourself with these major species.



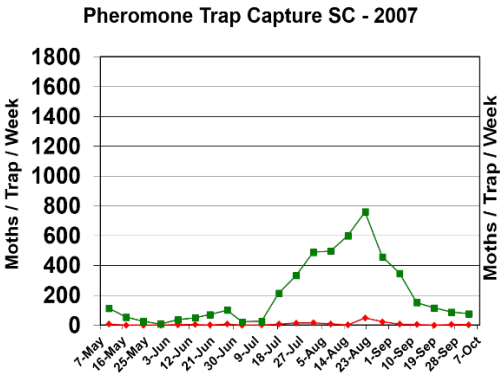
Bollworm & Tobacco Budworm

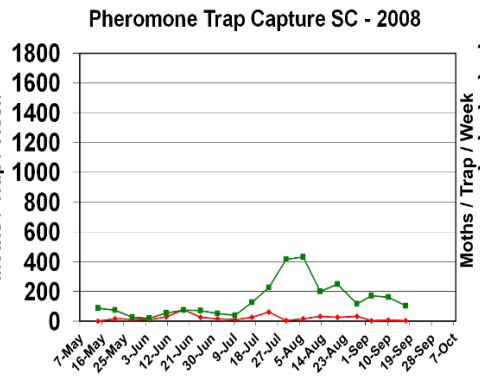
Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2018 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these data as a measure of moth presence and activity in our local area near my research plots. The numbers are not necessarily representative of the species throughout the state.

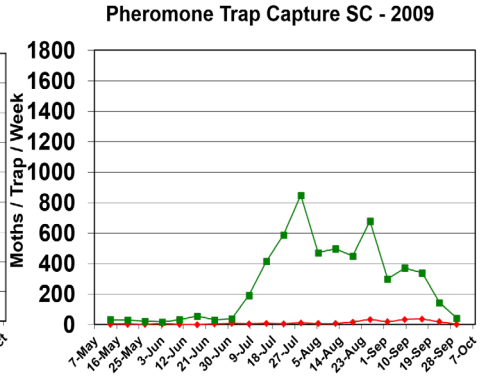


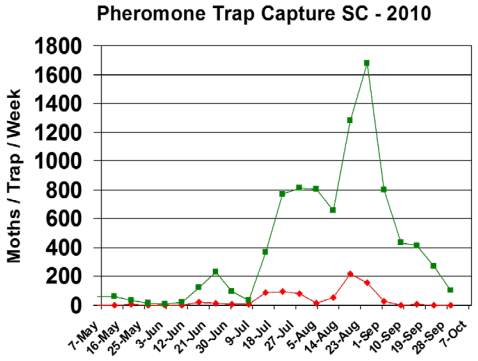


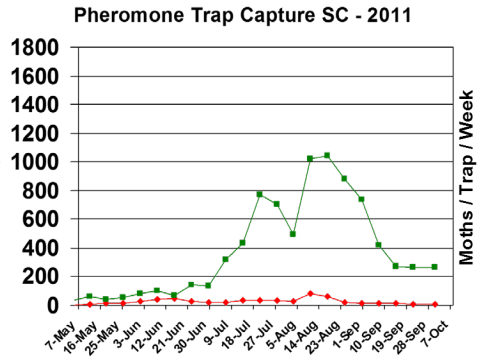
Trap data from 2007-2017 are shown below for reference to other years of trapping data from EREC:

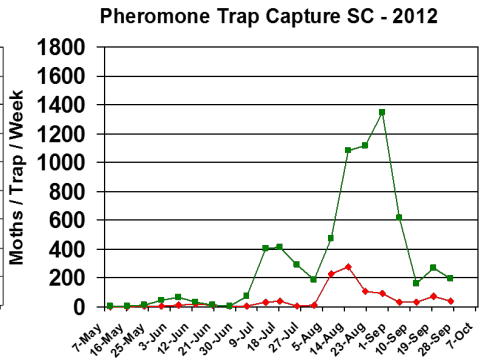


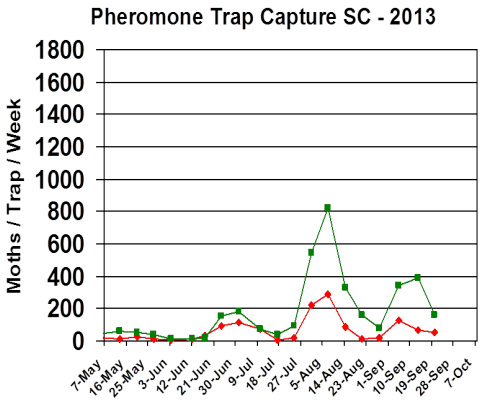


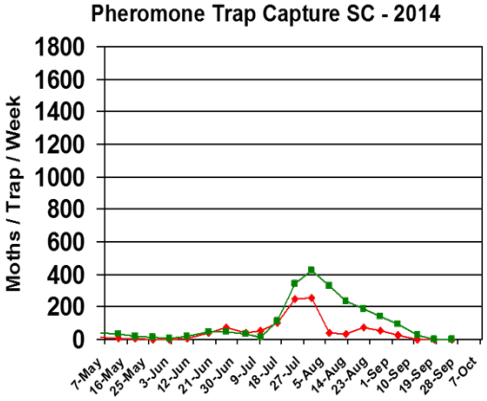


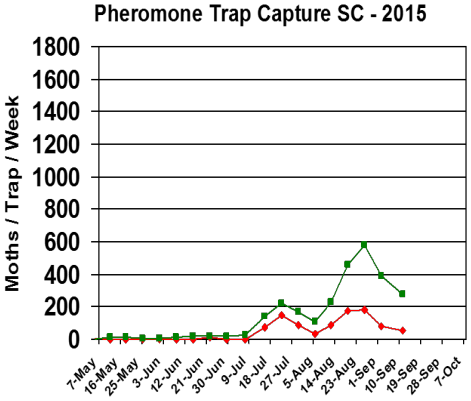


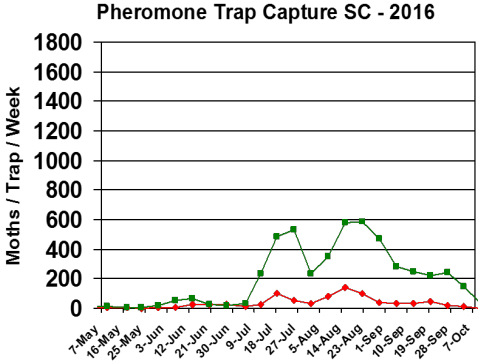


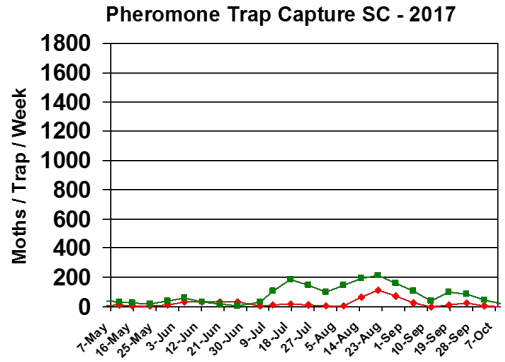








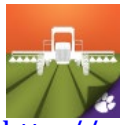




Pest Management Handbook – 2019

Insect control recommendations are available online in the 2019 South Carolina Pest Management Handbook at:
https://www.clemson.edu/extension/agronomy/pest%20management%20handbook.html

Free Mobile Apps: "Calibrate My Sprayer" and "Mix My Sprayer"



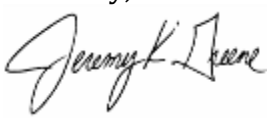
Download our free mobile apps called "Calibrate My Sprayer" and "Mix My Sprayer" that help check for proper calibration of spraying equipment and help you with mixing user-defined pesticides, respectively, in custom units (available in both iOS and Android formats):
http://www.clemson.edu/extension/mobile-apps/

Need More Information?

For more Clemson University Extension information: http://www.clemson.edu/extension/

For historical cotton/soybean insect newsletters:
https://www.clemson.edu/extension/agronomy/cotton1/newsletters.html

Sincerely,



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